IN THE CLAIMS

Please amend the claims as follows:

Claims 1-16 (Canceled).

Claim 17 (Previously presented): A mass-continuous process for the preparation of a rubber-reinforced vinyl aromatic (co)polymer comprising:

a. preparing a solution comprising:

from 3 to 20% by weight of a rubber having a solubility parameter (δ_1), selected from the group consisting of homopolymers and copolymers of 1,3-alkadienes containing 40-100% by weight of 1,3-alkadiene monomer and 0-60% by weight of one or more mono-ethylenically unsaturated monomers,

from 0.05 to 8.0% by weight of a rubber having a solubility parameter (δ_2) selected from the group consisting of homopolymers and copolymers of olefins or 1,3-alkadienes and at least one vinyl aromatic monomer;

b. polymerizing the solution at a temperature ranging from 50 to 250°C optionally in the presence of polymerization initiators and/or chain transfer agents to obtain the rubber-reinforced vinyl aromatic (co)polymer with a strictly bimodal morphology; and

c. recovering the rubber-reinforced vinyl aromatic (co)polymer thus obtained;

wherein

the rubber of solubility parameter δ_1 and the rubber of solubility parameter δ_2 are incompatible,

$\delta_1 - \delta_2 \geq 0.5$, and

the recovered rubber-reinforced vinyl aromatic (co)polymer consists of:

from 55 to 90% by weight of rigid polymeric matrix and

from 10 to 45% by weight of grafted and occluded particles having a strictly bimodal morphology, consisting of:

from 60 to 99% by weight of particles with a capsule or "core-shell" morphology and

from 1 to 40% by weight of particles with a "salami" morphology.

Claim 18 (Previously presented): A rubber-reinforced vinyl aromatic (co)polymer obtained according to the process of claim 17.

Claim 19 (Currently amended): The mass-continuous process for the preparation of a rubber-reinforced vinyl aromatic (co)polymer according to claim [[18]] 17, wherein

the particles with a "core-shell" morphology have an average diameter ranging from 0.10 to 0.30 μm, and

the particles with a "salami" morphology have an average diameter ranging from 1 to 5 μm.

Claim 20 (Currently amended): The mass-continuous process for the preparation of a rubber-reinforced vinyl aromatic (co)polymer according to claim [[18]] 17, wherein

the rubber having a solubility parameter (δ_1) is a linear diblock rubber of an S-B type,

wherein S is a polystyrene block having an average molecular weight Mw between 5,000 and 80,000, and

B is a poly-butadiene block with an average molecular weight Mw between 2,000 and 250,000.

Claim 21 (Currently amended): The mass-continuous process for the preparation of a rubber-reinforced vinyl aromatic (co)polymer according to claim 20, wherein an amount of the polystyrene S block is from 10 to 50% by weight with respect to the ~~totals~~ total weight of the S-B rubber.

Claim 22 (Currently amended): The mass-continuous process for the preparation of a rubber-reinforced vinyl aromatic (co)polymer according to claim 21, wherein

the polystyrene S block content is 40% by weight and

a viscosity of the S-B rubber in solution, measured at 23°C in a 5% by weight styrene solution, is from 35 to 50 cPs.

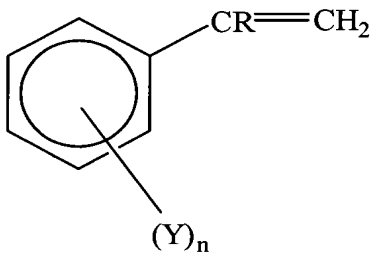
Claim 23 (Currently amended): The mass-continuous process for the preparation of a rubber-reinforced vinyl aromatic (co)polymer according to claim [[18]] 17, wherein

the rubber having a solubility parameter (δ_2) is polyisoprene, and

a viscosity of the polyisoprene in solution, measured at 23°C in a 5% by weight styrene solution, is from 100 to 1000 cPs.

Claim 24 (Currently amended): The mass-continuous process for the preparation of a rubber-reinforced vinyl aromatic (co)polymer according to claim [[18]] 17, wherein

wherein the vinyl aromatic monomer is represented by formula (I):



(I)

wherein R is a hydrogen or a methyl group, n is zero or an integer ranging from 1 to 5 and Y is a halogen ~~such as chlorine or bromine~~, or an alkyl or alkoxyl radical having from 1 to 4 carbon atoms.

Claim 25 (Currently amended): The mass-continuous process for the preparation of a rubber-reinforced vinyl aromatic (co)polymer according to Claim 17, wherein the solution [[is]] prepared in the at least one vinyl aromatic monomer ~~and optionally~~ further comprises:

an inert solvent and

a content of the at least one vinyl aromatic monomer and inert solvent is [[at]] 5 to 20% by weight with respect to a total weight.

Claim 26 (Previously presented): The process according to Claim 25, wherein the solution is prepared in a mixer maintained at a temperature not higher than 100°C.

Claim 27 (Currently amended): The mass-continuous process for the preparation of a rubber-reinforced vinyl aromatic (co)polymer according to Claim 17, wherein the polymerization comprises at least one polymerization initiator and a content of the at least one polymerization initiator is ~~initiators are added in a quantity ranging~~ from 0.005 to 0.5% by weight with respect to a weight of the at least one vinyl aromatic monomer ~~weight~~.

Claim 28 (Currently amended): The mass-continuous process for the preparation of a rubber-reinforced vinyl aromatic (co)polymer according to Claim 17, wherein the polymerization comprises at least one chain transfer agent an a content of the at least one chain transfer agent is ~~agents are added in a quantity ranging~~ from 0.005 to 0.5% by weight with respect to a weight of the at least one vinyl aromatic monomer ~~weight~~.

Claim 29 (Currently amended): A mass-suspension process for the preparation of a rubber-reinforced vinyl aromatic (co)polymer, comprising:

i) preparing a solution comprising:

from 3 to 20% by weight of a rubber having a solubility parameter (δ_1), selected from the group consisting of homopolymers and copolymers of 1,3-alkadienes containing 40-100% by weight of 1,3-alkadiene monomer and

from 0-60% by weight of one or more mono-ethylenically unsaturated monomers,

from 0.05 to 8.0% by weight of a rubber having a solubility parameter (δ_2) selected from the group consisting of homopolymers and copolymers of olefins or 1,3-alkadienes and

at least one vinyl aromatic monomer;

ii) pre-polymerizing the solution at a temperature ranging from 50 to 250°C optionally in the presence of polymerization initiators and/or chain transfer agents, until phase inversion takes place;

iii) after phase inversion, suspending the phase-inverted prepolymer in an aqueous phase with suspending agents; and

iv) completing polymerization in the aqueous phase in the presence of suspending agents to obtain the rubber-reinforced vinyl aromatic (co)polymer with a strictly bimodal morphology;

wherein

$\delta_1 - \delta_2 \geq 0.5$, and

the recovered rubber-reinforced vinyl aromatic (co)polymer consists of:

from 55 to 90% by weight of rigid polymeric matrix and

from 10 to 45% by weight of grafted and occluded particles having a strictly bimodal morphology, consisting of:

from 60 to 99% by weight of particles with a capsule or "core-shell" morphology and

from 1 to 40% by weight of particles with a "salami" morphology.

Claim 30 (Previously presented): A rubber-reinforced vinyl aromatic (co)polymer obtained according to the process of claim 29.

Claim 31 (Currently amended): The process for preparing a rubber-reinforced vinyl aromatic (co)polymer according to claim ~~30~~ 29, wherein

the particles with a "core-shell" morphology have an average diameter ranging from 0.10 to 0.30 μm, and

the particles with a "salami" morphology have an average diameter ranging from 1 to 5 μm.

Claim 32 (Currently amended): The process for preparing a rubber-reinforced vinyl aromatic (co)polymer according to claim ~~30~~ 29, wherein

the rubber having a solubility parameter (δ_1) is a linear diblock rubber of an S-B type,

wherein S is a polystyrene block having an average molecular weight Mw between 5,000 and 80,000, and

B is a poly-butadiene block with an average molecular weight Mw between 2,000 and 250,000.

Claim 33 (Currently amended): The process for preparing a rubber-reinforced vinyl aromatic (co)polymer according to claim 32, wherein an amount of the polystyrene S block is from 10 to 50% by weight with respect to the ~~totals~~ total weight of the S-B rubber.

Claim 34 (Currently amended): The process for preparing a rubber-reinforced vinyl aromatic (co)polymer according to claim33, wherein

the polystyrene S block content is 40% by weight and

a viscosity in solution, measured at 23°C in a 5% by weight styrene solution, is from 35 to 50 cPs.

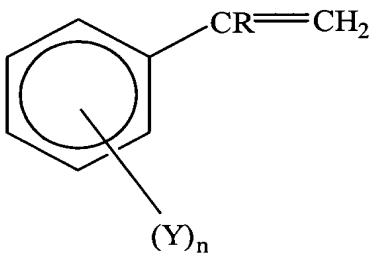
Claim 35 (Currently amended): The process for preparing a rubber-reinforced vinyl aromatic (co)polymer according to claim ~~30~~ 29, wherein

the rubber having a solubility parameter (δ_2) is polyisoprene, and

a viscosity in solution, measured at 23°C in a 5% by weight styrene solution, is from 100 to 1000 cPs.

Claim 36 (Currently amended): The process for preparing a rubber-reinforced vinyl aromatic (co)polymer according to claim ~~30~~ 29, wherein

wherein the vinyl aromatic monomer is represented by formula (I):



(I)

wherein R is a hydrogen or a methyl group, n is zero or an integer ranging from 1 to 5 and Y is a halogen ~~such as chlorine or bromine~~, or an alkyl or alkoxyl radical having from 1 to 4 carbon atoms.

Claim 37 (Currently amended): The process for preparing a rubber-reinforced vinyl aromatic (co)polymer according to claim 29, wherein the solution [[is]] prepared in the at least one vinyl aromatic monomer ~~and optionally~~ further comprises: an inert solvent and

a content of the at least one vinyl aromatic monomer and inert solvent is [[at]] 5 to 20% by weight with respect to a total weight.

Claim 38 (Previously presented): The process according to Claim 37, wherein the solution is prepared in a mixer maintained at a temperature not higher than 100°C.

Claim 39 (Previously presented): The process according to Claim 29, wherein during the (pre)polymerization reaction in solution, the reactors are maintained at a pressure ranging from 0.5 to 5 bar and a temperature of between 70 and 150°C, whereas during the polymerization reaction in suspension the temperature ranges from 100 to 170°C.